

**CATHOLIC RELIEF SERVICES - USCC**  
**ECUADOR PROGRAM**

**CRS CHILD SURVIVAL PROJECT**  
**IN MARGINAL RURAL AREAS**

AID PROJECT No: FAO-0500-A-00-2039-00  
CRS PROJECT No: 730-92-002

**FINAL EVALUATION**

February-March 1996

EVALUATION TEAM:

Fernando Ortega	Marcelo Quevedo
Rafael Correa	Lupe Orozco
Susana Heredia	Renata Jara

## TABLE OF CONTENT

	Page Number
1. PROJECT BACKGROUND	1
2. PROJECT EVALUATION	2
2.1 Evaluation Goal	2
2.2 Methodology	2
2.3 Techniques	3
2.3.1 Survey	3
2.3.2 Interviews	3
2.3.3 Observation	3
2.3.4 Review of Documents	4
2.4 Sample Design	4
3. DATA COLLECTION, PROCESSING AND ANALYSIS	5
4. RESULTS OF THIS EVALUATION	6
4.1 Project Accomplishments and Lessons Learned.	6
4.1.1 Project Accomplishments	6
4.1.1.1 Accomplishment in Meeting Project Objectives.	7
4.1.2 Positive and Negative "Spin Off" Effects of Project Activities.	21
4.1.2.1 Positive Effects	22
4.1.2.2 Negative Effects	23
4.1.3 Final Survey Report	24
4.1.4 Project Expenditures	24
4.1.4.1 Pipeline Analysis of Project Expenditures	24
4.1.5 Lessons Learned	24

	Page	Number
4.2	Project Sustainability	25
4.2.1	Community Participation	25
4.2.2	Ability and Willingness of Counterpart Institutions to Sustain Project Activities.	26
4.2.3	Key Factors that Might Determine Project Sustainability in the Future.	26
4.2.3.1	Positive Factors for Sustainability	27
4.2.3.2	Obstacles for Sustainability	28
5.	CONCLUSIONS	28
ANNEX I:	Final Evaluation Survey	i
APPENDIX A:	Pipeline Analysis	ii
OTHER ANNEXES:		iii
-	Generalidades sobre el Funcionamiento de Crédito	
-	Table for the Credit Component	

## 1. PROJECT BACKGROUND

The Dioceses of Ibarra and Riobamba in partnership with CRS, have implemented a three-year child survival project in marginal rural areas of the Imbabura and Chimborazo provinces of Ecuador. This project received technical, financial and administrative support from Catholic Relief Services and USAID. The implementation of this project started in October 1992. Both provinces were selected due to their socio-economic indicators and per the request of the Dioceses (see DIP: B.1).

A total population of 2,150 beneficiaries was served in both Dioceses, representing nearly 82% of the target population (2,630 children under five years of age). The project has been carried out in 87 communities (72.5% of target communities) based on their accessibility, poverty levels, participation of clergy, size of the sites, and interest of local leaders. These isolated sites were also within the influence of a Ministry of Health (MOH) health unit, such that health services were made available to the communities.

Forty-nine communities were located within 1 1/2 hours from Ibarra. An average of 30.8 families per community were served by project promoters and technicians. Most of the communities were accessible by road year round, with a few exceptions in the winter rainy season. In Riobamba there were 38 communities located 2 hours (average) from the city. The average number of families per community was 21. Many of the communities were inaccessible by vehicle during winter rains that lasted longer than in the Ibarra Diocese.

The project supported the improvement of health and nutrition conditions of its target population by reinforcing their participation, encouraging self-care and self-management, carrying out activities related to nutritional and health education, and promoting health services. These activities included: diarrheal diseases and acute respiratory infections control, growth monitoring of children, promotion of vaccinations and breastfeeding, and vitamin A deficiency control. The activities also included a production/credit component which rotating funds were delivered to Community Credit Committees.

The project objectives established in the DIP were modified following the recommendations of the DIP reviewers. The following objectives were evaluated:

- 1) Reduce undernutrition rates for children under two years of age by 8.6%;
- 2) Ensure that 80% of the mothers of children under five years of age **know** and practice correct treatment when their children have diarrhea;
- 3) Ensure that 85% of children between 12 and 23 months are totally immunized;
- 4) Introduce an average of three nutritionally well balanced products or three minor animals into the family's general production system, through direct credit and technical assistance;
- 5) Ensure that 80% of the mothers of children under five years of **age** can identify the major symptoms of pneumonia (rapid/difficult breathing and subcostal indrawing); and
- 6) Reduce the incidence of low birth weight by 10%, and ensure an adequate weight gain in 98% of the children with normal birth weight.

## 2. PROJECT EVALUATION

### 2.1 Evaluation Goal

The overall goal of this evaluation is to assess the effectiveness and sustainability of the project.

### 2.2 Methodology

The methodology used for this study is called "Evaluation Research". This means that a systematic evaluation of the activities of the project must be implemented to determine the effectiveness and sustainability of the project. The results of this evaluation will provide practitioners, administrators, trainers, and community members with important information about how well the project has **met** its goals and the needs of the communities it serves. This information can then be used to support decisions about future implementation, funding and resource allocation.

The evaluation research design begins by delineating a specific blend of research techniques in order to collect and analyze the data. To attain maximal internal validity this evaluation design used the same variables studied in former baseline and midterm evaluations of this project. A quasi-experimental design is adopted with **a comparison group studied** before the implementation of the project (baseline evaluation), and another group is studied at the end of the project implementation (final evaluation).

## 2.3 Techniques

### 2.3.1 Survey

A field survey was conducted in both Dioceses to establish the current status of child survival indicators, the final conditions of production/credit activities, and the communities participation. To maintain accuracy of data and research validity, a cluster sample methodology was implemented similar to the baseline and midterm surveys. Twenty-six communities from Ibarra and 18 communities from Riobamba Dioceses were studied. A total of 10 families in each community were interviewed. Before the fieldwork, the evaluation team reviewed the former questionnaire and suggested the inclusion of appropriate credit and production questions. The final version of the questionnaire contained 73 questions related to knowledge and practices of health and credit domains. Health questions were not modified to compare results with those from former surveys applied during the life of the project, and to the initial objectives. A manual for interviewers and supervisors was elaborated to facilitate their training before the survey and to establish standard procedures. Data was processed with the EPI-INFO 6 software.

### 2.3.2 Interviews

The evaluation team prepared several interview guides for: a) community promoters and credit committee members; b) CRS project personnel; c) Diocesan technicians, pastoral agents and bishops; and, d) MOH counterparts.

### 2.3.3 Observation

All members of the evaluation team visited CRS installations, diocesan offices, and all sampled communities to establish contact with project actors and beneficiaries, and to supervise the implementation of the survey.

#### 2.3.4 Review of Documents

The evaluation team studied CRS documents in order to understand project design, objectives, goals, mechanisms of implementation, constraints already detected, and achievements. The following documents were reviewed:

1. DIP and annual operational plans to establish the level of accomplishment of project goals and objectives, (i.e., the effectiveness of the project);
2. CRS annual reports and annual plans to measure achievements during project life;
3. Base line survey report which estimates Child Survival (CS) knowledge and practices among the beneficiaries;
4. Mid-term evaluation, to assess the implementation of recommendations during the last months of this project;
5. **CRS** Child Survival in Marginal Rural Areas Project Extension document: and,
6. CRS Health Information System which provides monthly reports while monitoring CS activities as they have been implemented. This was a useful tool to detect common trends in attendance and prevalence rates.

#### 2.4 Sample Design

This study focussed on several child survival interventions; therefore, the size of the sample was determined by the requirements of the intervention which needed the largest sample. The formula for calculating the sample size was:

$$n = z^2 \cdot pq/d^2$$

Where n is the size of the \*sample; **z** is the minimum reliability = 1.96; p is the percentage of coverage or prevalence; **q** is (**1-p**); and d is the desired precision usually between 5% and 10%. The following formula was used to calculate reliability:

95% reliability =  $p \pm z \cdot \sqrt{pq/n}$ , where p is the proportion in the population; z is the constant value according to the normal statistical curve.

Since each province has different characteristics and an independent administration, it was decided that this study should respond to the needs of each, and for that reason the sample was increased. We considered a total of 87 communities where the project was implemented as the statistical population. In order to draw a sample they were proportionally stratified in relationship to the demographic size of each Diocese.

The result was 26 communities in Ibarra and 18 communities in Riobamba. Each community was considered as a cluster of equal size, and ten mothers of each cluster were included for the interviews. When a cluster did not have the 10 cases to be interviewed, the closer cluster/community was then chosen to complement the number of mothers. Only **one** community had to be replaced because inaccessibility due to winter rains. A total of 258 and 180 mothers of children under 24 months of age were surveyed in Ibarra and Riobamba Dioceses, making 438 total interviews. This sample included a 10% rate for non- response and drop-outs. The following communities were selected:

IBARRA: Ajumbuela, Azaya, Barrio Humedo, Bellavista, Chiriyacu, **Chuga**, El Inca, El Sitio, Iltaquí, Imbabuela, La Calera, La Cantarilla, La **Compañía**, La Magdalena, Los Arboles, Morochos, **Perafán**, Piava San Pedro, Salinas, San Antonio, San Ignacio, San Juan, San Luis, San Miguel, San Pedro, and Shanshipamba.

RIOBAMBA: Argentina, Buenos Aires, **Callag** la Libertad, Cascajal, **Cruz de Hueso**, El Citado, Guamanpata, Guayacanes, Igualata, La Delicia, La Dolorosa, La Marina, Multitud Centro, Sacramento, San Vicente, Santa Rosa, and Valparaiso.

Communities selected for completion (when not enough cases were found): IBARRA (Cambugbn, El **Batán**, **Santa Bárbara**, Las Mercedes, and San Francisco), RIOBAMBA ( La Merced).

### 3. DATA COLLECTION, PROCESSING AND ANALYSIS

Data was collected in both Dioceses simultaneously by two teams of 10 interviewers and 3 supervisors over five consecutive working days. Field teams did not encounter difficulties gathering information. Full questionnaires were checked and verified every night by the supervisors before entering the information into the computers. Data was processed with the EPI-INFO 6 software program. Frequency distributions were obtained for each question. Cross-reference tables were developed to include other indicators. The population of both Dioceses was considered as one for the analysis of the data. For certain variables separated levels of analysis were considered: beneficiaries and non- beneficiaries, Ibarra and



Riobamba Dioceses population, age groups, etc. Results of final evaluation were compared to baseline and midterm evaluations. The information collected by interviews and observation techniques was analyzed and discussed by the members of the evaluation team and then incorporated into this report.

#### 4. RESULTS OF THIS EVALUATION

##### 4.1 Project Accomplishments and Lessons Learned

###### 4.1.1 Project Accomplishments

Project activities were scheduled to be implemented in 120 communities assuming that all communities were already organized. The project started in October 1992 with the promotion of its activities and the initial organization of several communities in both Dioceses. An initial period of ten months was required for project initiation, recruitment and training of personnel as well as for the selection of the communities.

The original idea was to expand on former CRS experiences from a first USAID-funded Child Survival Project. From the onset it was assumed that all communities were prepared for immediate project implementation, and that the technical staffs were also up to speed. As this was not the case, the initiation of activities took longer than expected.

The level of effort (20 communities per technician) represented a 250% increase over the first project "which was thought to be feasible based on the team's five precedent years of experience" (c.f. Midterm evaluation report). New and inexperienced technical teams were created for both Dioceses. They had to support a heavy load of work with the same methodology used by former teams. This project design did not adequately take into consideration the work proportion and understaffing.

Community and groups of mothers were organized to work for their children's benefit through an active participation in monthly meetings. Community promoters had to be trained in health, nutrition and credit activities. The project followed a health education and agricultural credit scheme. The overall goal was to train community volunteers to deliver selected primary health care services to pregnant and nursing women and children under five years of age. Monthly meetings were used by promoters and mothers to exchange ideas and experiences in growth monitoring, infant nutrition and maternal health care.

Riobamba Dioceses population, age groups, etc. Results of final evaluation were compared to baseline and midterm evaluations. The information collected by interviews and observation techniques was analyzed and discussed by the members of the evaluation team and then incorporated into this report.

#### 4. RESULTS OF THIS EVALUATION

##### 4.1 Project Accomplishments and Lessons Learned

###### 4.1.1 Project Accomplishments

Project activities were scheduled to be implemented in 120 communities assuming that all communities were already organized. The project started in October 1992 with the promotion of its activities and the initial organization of several communities in both Dioceses. An initial period of ten months was required for project initiation, recruitment and training of personnel as well as for the selection of the communities.

The original idea was to expand on former CRS experiences from a first USAID-funded Child Survival Project. From the onset it was assumed that all communities were prepared for immediate project implementation, and that the technical staffs were also up to speed. As this was not the case, the initiation of activities took longer than expected.

The level of effort (20 communities **per** technician) represented a 250% increase over the first project "which was thought to be feasible based on the team's five precedent years of experience" (c.f. Midterm evaluation report). New and inexperienced technical teams were created for both Dioceses. They had to support a heavy **load** of work with the same methodology used by former teams. This project design did not adequately take into consideration the work proportion and understaffing.

Community and groups of mothers were organized to work for their children's benefit through an active participation in monthly meetings. Community promoters had to be trained in health, nutrition and credit activities. The project followed a health education and agricultural credit **scheme**. The overall goal was to train community volunteers to deliver selected primary health care services to pregnant and nursing women and children under five years of age. Monthly meetings were used by promoters and mothers to exchange ideas and experiences in growth monitoring, infant nutrition and maternal health care.

Beginning in October 1992, most of the programmed training activities were accomplished in both Dioceses as indicated in corresponding annual reports. It is very important to mention and underline that this project's main commitment was to develop training activities to improve health conditions among its beneficiaries.

The training methodology was developed in two main stages: first diocesan teams were trained by CRS personnel; and second, diocesan teams trained community promoters. CRS training sessions were developed on a quarterly basis and in-service training was also provided on a regular basis.

Training activities were not always carried out as programmed. An extra number of training sessions were included. The subjects of these training activities were mostly related to child survival components. Other subjects included were: human relations, adequate use of training materials, participatory methodology, basic statistics, health information systems, and motivational encounters.

#### **4.1.1.1 Accomplishment in Meeting Project Objectives**

The data showed that there is similar distribution of beneficiaries (58.2%) against non-beneficiaries (41.8%). Nevertheless, many variables were analyzed exclusively relating to beneficiaries. This somewhat precludes us from distinguishing real differences between both groups. Whenever possible these differences will be pointed out.

In order to review the accomplishment of project objectives we will proceed to discuss all the indicators tested, objective by objective.

#### **Objective One**

**Reduce undernutrition rates for children under two years of age by 8.6%.**

This first objective can be evaluated through several indicators related to the determination of nutritional status (determination based on weight by age indicator), monthly weighing of children, recordkeeping and interpretation of the growth curves. The Infant Health Chart (Carnet de Salud Infantil) is the key instrument for growth monitoring. The MOH has accepted its responsibility for providing the Dioceses with sufficient Infant Health Charts for the life of the project and beyond.

## The Infant Health Chart

**Table 1: Infant Health Chart Use and Growth Monitoring Activities**

Variable	Beneficiaries	Non Beneficia- ries	Total
Child with I.H.Ch.	61 .0%	48.6%	55.8%
Weight marks during the last four months.	58.7%	25.0%	46.5%
Weight gain.	76.9%	59.1%	73.5%
Average of Weights during last 12 months.	5.4% (DS $\pm$ 2.8)	2.3% (DS $\pm$ 1.5)	4.8% (DS $\pm$ 2.8)

CRS Child Survival in Marginal Rural Areas. Final survey. March 1996.

Beginning in October 1992, most of the programmed training activities were accomplished in both Dioceses as indicated in corresponding annual reports. It is very important to mention and underline that this project's main commitment was to develop training activities to improve health conditions among its beneficiaries.

Differences between beneficiaries and non-beneficiaries are statistically significant with p values under .05 in all variables analyzed.

The baseline study showed 65.6% of children with Infant Health Chart (IHCh). Unfortunately in this survey only 55.8% of interviewed mothers were able to produce the infant's health chart. This reduction of 14.9% can be explained, in part, by the MOH being unable to supply the project with the cards due to continual shortages; in spite of the cooperative agreement signed between the MOH and CRS in 1992.

Health policy changed when the new minister was appointed. The priorities of the new administration also changed, and maternal and child health became secondary activities of the MOH. Some efforts were made by the Diocese of Ibarra, which tried to supply this instrument at the beginning of the project.

Only 46.5% of those mothers that showed the infant health chart registered their child's weight. However it was possible to observe that most of the children were being recorded in the promoter's books. This may underestimate the real percentage of children weighed in the communities. The percentage of use among beneficiaries that used weight charts was 58.756, while only 25% on non-beneficiaries registered weights. The yearly average for

project beneficiaries registering weight was 5.4 vs. 2.3 weighings for non-beneficiaries. We noticed that most children had their weights registered in community records. These differences make evident the results obtained through the application of growth monitoring activities implemented by this project.

### **Progressive Weight Gain**

The idea of comparing weights from consecutive months is to let the mothers check the normal and progressive increase of weight of their children. It was intended to provide them with the opportunity of correcting any deficiency (lack of weight gain) in a timely fashion. The analysis of the information shows little variation of the percentage in Riobamba while in Ibarra there is a clear increase from 60% to 70% of children who gained weight, as shown by the health information system:

**Table 2: Increase in Percentage of Children who Gained Weight**

Dioceses	1993	1994	1995
Riobamba	59.0%	64.0%	57.0%
Ibarra	60.0%	68.0%	70.0%

Source: CRS Child Survival in Marginal Rural Areas. Final survey. March 1996.

An average of 73.5% of children who gained weight is reported from the final evaluation survey. From those children that are beneficiaries of this project 76.9% gained weight while only 23.1% of the non-beneficiaries did so. The data described above correspond to 33.0% of children who have a complete weight gain record.

### **Nutritional Conditions of Dioceses' Population**

The nutritional conditions for this final evaluation were evaluated through the health information system of the project that collected its information from the Infant Health Chart.

The nutritional indicator used by this instrument was weight/age. The Objective number one is to reduce undernutrition by 8.6%. This Objective was established based on the prevalence of malnutrition showed by other communities that live under similar conditions as the communities of this project. Anthropometrical data was not collected during the baseline study because of this assumption.

The reported 48% prevalence of undernutrition used an adjustment (Mora) that substantially modified the data. An example will be useful to clarify this transformation. In 1986 the national diagnosis of health and nutritional conditions (BANS-86) showed a prevalence of malnutrition (weight/age) of 16%; the adjusted prevalence in that case was 38%. The health information system used by the project led us to use non-adjusted rates. Because of these reasons we tried to use this indicator as an approximation to nutritional condition. The data was collected through the health information system during the months of August in three consecutive years. The prevalence of malnourished (<2s.d. of NCHS) children under two years of age is demonstrated in the following tables:

**Table 3: Prevalence of Malnourished Children Under Two Years of Age in Riobamba.**

Age Groups (months)	Aug. 93		Aug. 94		Aug. 95	
	No.	%	No.	%	No.	%
0-6	36	31.4	50	24.0	56	30.4
7-11	46	37.0	58	20.7	55	21.8
12-23	58	24.1	221	8.6	227	9.7
TOTAL	139	30.2	329	13.1	348	15.1

No. = Total number of children weighed during August of each year.

Source: Child Survival in Marginal Rural Areas Project.  
Health Information System. Diocese of Riobamba.  
March 1996.

**Table 4: Prevalence of Malnourished Children Under Two Years of Age in Ibarra.**

Age Groups (months)	Aug. 93		Aug. 94		Aug. 95	
	No.	%	No.	%	No.	%
0-6	23	10.0	78	7.7	44	4.5
7-11	20	10.0	92	11.9	82	7.3
12-23	54	22.2	173	24.3	214	23.4
TOTAL	94	14.9	343	17.2	340	17.1

No. = Total number of children weighed during August of each year.

Source: Child Survival in Marginal Rural Areas Project. Health Information System. Diocese of Ibarra. March 1996.

From the above tables we can conclude that there were not any big differences of prevalence of malnutrition in Tbarra Diocese. Most prevalence rates are the same. This is not the case in Riobamba Diocese where 1993 rates are evidently different from the other two years, especially for children older than six months of age. This could be due to measurement errors during the first stages of project **implementation** in Riobamba.

The final survey reveals 13.5% of malnourished children (<2 s.d. of NCHS ) under two years of age. The survey provides information with non-adjusted rates. We must emphasize that most children were located above <2 s.d.

The prevalence of malnutrition among beneficiaries was 14.4% (91 cases analyzed) and 9.5% among non-beneficiaries (22 cases). Unfortunately the number of children with weight measurements was small and no conclusions can be drawn. Nutritional status cannot be justified or validated through these findings. Neither the baseline nor the final evaluation measured weight/height, or height/age. That is, it cannot be determined if malnourished children suffered from acute or chronic type of malnutrition. No calibration on instruments were made, nor were standardized techniques used.

#### **Breastfeeding and Weaning Period**

Breastfeeding and weaning periods have been detected as crucial periods in child nutrition and health. Health education activities have also been underlined by many authors as an important part of child survival projects in the world. In both Dioceses breastfeeding was reinforced after monthly weighing sessions in every community of the project. The prevalence of breastfeeding for all ages was 76.5% in the baseline study. This rate increased to 95.1% in children under 4 months of **age**.

**Table 5: Breastfeeding Among Children Under One Year of Age.**

Age group (months)	Benef.	Non Benef.	Total
	n = 255	n = 183	n=438
< 4	100%	90.6%	95.1%
4 - 6	100%	96.3%	98.2%
7 - 11	92.4%	81.6%	86.5%
> 12	60.8%	60.5%	60.6%

Sources : CRS Child Survival in Marginal Rural Areas.  
Final Survey. March 1996.

Almost fifty percent (50.8%) of children breastfed within the first hour of birth and an additional 26.0% within one to eight hours after birth.

Twelve percent of children aged 4 months practiced exclusive breastfeeding. Although there were no statistically significant differences between beneficiaries and non-beneficiaries we observe a better attitude toward breastfeeding among beneficiaries. The percentage detected by the baseline study was 13.4%. This does not mean that there is a real reduction of exclusive breastfeeding practice, nor an increase.

**Table 6: Weaning Period.**

Period When Weaning is Started	Beneficiaries	Non Benefeciaries	Total
Before 4 months of age	9.0%	8.8%	8.9%
Between 4 and 6 months	46.7%	45.5%	46.1%
After 6 months of age	40.8%	35.7%	38.3%
Do not know	3.5%	10.4%	6.4%

Source: CRS Child Survival in Marginal Rural Areas. Final survey. March 1996

Weaning period is initiated by 46.1% of mothers between 4 and 6 months of age. This is significantly higher than the baseline 37.6%. The percentage of mothers who use semi-solid food during weaning period account for 76.3%, with no difference between beneficiaries and non-beneficiaries being noted.

It is important to underline that the percentage of beneficiaries that "do not know" the appropriate age to start the weaning period is three times smaller than the percentage of non-beneficiaries. The possibility of a positive impact of educational components of this project could be the reason for this difference, but we suggest we look for more detailed information before drawing definite conclusions.

**Table 7: Food Consumption Percentages for Children Under Four Months of Age.**

Survey	Water	Milk	Fruits	Greens	Meat	Eggs	Oil	Salt
Baseline	46.5	15.1	8.1	4.7	5.8	5.8	41.9	11.6
Final	141.9	14.0	4.7	2.3	2.3	4.7	9.3	4.7
Eval.								

Source : CRS Child Survival in Marginal Rural Areas. Final survey. March 1996.



With regard to the consumption of food other than breastfeeding before 4 months of age we observed a slight reduction in this practice from the baseline study. The reduction is generalized for all types of food in this age group. It is not possible to formulate any conclusion, but it could be hypothesized that this reduction from baseline study has been motivated by educational activities that have focused on infant feeding practices. Any conclusion, on this regard, must be formulated by conducting appropriate research.

Another component is vitamin A. Only 4.0% of mothers can identify vitamin A as a preventive measure to avoid night blindness. This may be due to the suspension of application of this component as was suggested by the Midterm evaluators. Nevertheless, the food frequency questionnaire suggests that there is an increased consumption of green vegetables and carrots. Mothers may not know about the biological functions of vitamin A and still have changed their dietary habits.

#### **Objective Two**

**Ensure that 80% of the mothers of children under five years of age know and practice correct treatment when their children have diarrhea.**

Child survival components include diarrhea disease control. Diarrhea affects food consumption/absorption and causes dehydration and malnutrition. The control of these conditions requires simple and relatively inexpensive interventions.

Current survey results found that the percentage of children presenting diarrhea episodes during the last two weeks is 32.4%. The percentage of children who received Oral Rehydration Solutions (ORS) during last episode increased from 8.9% (baseline) to 14.8%. This may be due to a combined effort of project educational component and the aggressive marketing performed by the MOH. Among the beneficiaries 17.1% claimed to use ORS; additional evidence of the impact achieved through this project.

The percentage of mothers who \*reported not knowing how to recognize major signs and symptoms of severity of diarrhea, has effectively changed from 36.0% to 19.6%. This is consistent with a detected positive change in knowledge of mothers about signs of dehydration: 3.0% (baseline) to 26.7% (final evaluation). We could not detect significant changes for other signs and symptoms of diarrhea severity. Almost twice as many of the beneficiaries recognized the symptoms properly. These findings show a clear influence of the educational component of the project.

Approximately 68.3% of mothers continue or increase breastfeeding during acute episodes of diarrhea. In the baseline study the percentage was 80.0%. There is no difference between beneficiaries and non beneficiaries.

**Table 8: Diarrhea Managed by Community Mothers**

Variables	Benef. (%)	Non Benef. (%)	Total (%)
Food Amount (equal or increased)	57.4	43.3	51.4
Breastfeeding (equal or increased)	68.1	68.3	68.3
More Fluids	45.7	30.0	39.0
Use of ORS	17.1	11.7	14.8
Use of ORT	12.2	3.3	8.5
Use of Medicines	28.0	33.3	30.3
Signs of Dehydration	34.9	15.3	26.7

Source: CRS Child Survival in Marginal Rural Areas. Final survey.

An increase from 23.9% to 39.0% was achieved in the provision of more liquids during children's diarrhea illness. The difference between beneficiaries (45.7%) and non-beneficiaries (30%) is evident. An increase from 61.1% to 73.0% has been achieved in the provision of same or greater amount of liquids during children's diarrhea illness. The project achieved 97% of the objective.

The provision of food during diarrhea in equal or increased amount remains unchanged from the baseline (52.7%). Although some differences are detected between beneficiaries (57.4%) and non-beneficiaries (43.3%) in the final evaluation.

### **Objective three**

**Ensure that 85% of children between 12-23 months are totally immunized.**

In Ecuador, the schedule of vaccinations includes three doses of DTP and OPV, one of BCG, and one of measles vaccines during the first year of age. For the second year, another dose of OPV and DTP vaccines is recommended. The institution responsible for achieving at least 80% coverage of infants with a full schedule of vaccinations is the MOH. The project contributed to making this goal possible, but the entire responsibility remains with the MOH

which provides vaccines. The indicator used to evaluate the accomplishment of this objective is the coverage of children between 12 - 23 months totally immunized. The project objectives assumed an increase of coverage from 44.3% in 1992 to 85% in 1995.

To accomplish this objective technical staff, community promoters, and mothers, checked the vaccine schedule monthly, and referred children to MOH units for the corresponding dosis. In a coordinated effort with MOH personnel this project also collaborated with periodical vaccination campaigns. In each community a community vaccination chart was prepared for surveillance. As result of this close collaboration the vaccination coverage increased significantly from the baseline to the midterm evaluation. Unfortunately, during at least six months of 1995 MOH vaccination activities were reduced to a minimum (due to lack of supplies); and, as a result, vaccination coverage. Current unpublished MOH data is consistent with these evaluation findings.

**Table 9: Vaccination Coverage 12 - 23 Months**

Vacc i ne	Baseline (%)	MidTerm (%)	Final (%)
BCG	69.9	99	40.5
DTP (3rd. doses)	50.6	98	49.2
Polio (3rd. doses)	50.6	97	48.3
Measles	53.4	91	50.0

Sources: Child Survival in Marginal Rural Areas  
Project Baseline, Midterm and Final  
evaluations. 1992 - 1996.

The final evaluation used vaccine information collected through the Infant Health Chart. The low percentage of mothers showing this instrument during the survey interview could be a factor for lower coverage. Another could be the lack of offered services, and finally, the lack of a proper record (infant health chart).

The percentage of mothers who knew the correct age for receiving measles vaccine increased from 14.9% in baseline study to 47.1% in the final evaluation. There were no significant differences between beneficiaries and non-beneficiaries when midterm results were compared to final results. This could be due to MOH vaccination activities that addressed the general population and not exclusively project beneficiaries.

#### Objective Four

**Introduce an average of three nutritionally well-balanced products, or three minor animals into the family's general production system, through direct credits and technical assistance.**

Objective four focused on the less favored population and encouraged community organization and self-management. The intended beneficiaries were 3,000 mothers with children under five years of age. Each community formed its own Credit Committee to administer a rotating credit fund to finance small production loans. Based on established norms (provided by each Dioceses) the committee selected the beneficiaries, period and purpose of credit as well as the interest rates to be charged. The amount of funds per beneficiary depended on the total amount of credit assigned to each community, and the number of credit requests made by the potential beneficiaries in each community. The term for returning the capital and interest depended on the type of product (crop or small animals). An extra monthly interest of one percent was charged for late repayment in the Ibarra Diocese.

In Riobamba the central committees delivered credit funds directly to community credit committees, while in Ibarra the Diocese Office placed them into savings banking accounts opened for each community. Later, the money was withdrawn by the assigned community member who received a stamp of authorization from the Diocese on the withdrawal notice.

At the beginning of the project, the design and planning of the credit component were rudimentary at best. Clarity in the rules and procedures were a difficulty throughout the first half of the project. Only recently, in January 1995, a document briefly described the credit component (see appendix 2.1). This description was crucial in order to adequately implement the credit component; its absence created several difficulties in interpretation and a slow down in the implementation of project activities. Detected difficulties were: i) absence of clear understanding of how credit components articulated with the rest of objectives and activities of this project; and, ii) lack of adequate training and technical assistance aimed at those responsible in each Diocese, community credit committee, and community members (25% illiteracy among mothers).

At the diocesan level personnel lacked adequate specialization in credit related activities, and throughout most of the project period procedures and control/adjustment mechanisms were not adequately in place. Moreover, CRS controlled loan amounts

while interest rates were established at the diocesan level. Many of these contradictions were not resolved until the last year of the project.

### **Allocation of Resources**

The initial budget for this component was USD\$120,000.00 which represented USD\$5.14 per, person or USD\$38.11 per current beneficiary. Although populations differed in each Diocese (Ibarra greater than Riobamba), the budget assignment was the same USD\$60,000; this meant that in Ibarra the credit budget per person or per potential beneficiary was 30% less than in Riobamba. In Ibarra, 86% of the total budget was disbursed while in Riobamba this proportion reached only 61%.

### **Credit Characteristics**

In Ibarra, individual loan amounts reached US\$75 for cycles which varied between 3 to 6 months. The annual interest rate were 42% (3.5% monthly). In case of repayment delays, interests were capitalized and monthly interest rates increased by one percent. In the Diocese of Riobamba the maximum credit amount was the same (US\$ 75). All credit was given for the same six months period at an annual interest rate of 30% ( a 15% semester interest rate). Default rates were minimal and no charges were applied. However, a default regulation was established (Table 2.2).

### **Sources and Use of Credit Funds**

The main source of credit funds were the periodic project disbursements that represent 77,6% of available credit funds. The interests paid by beneficiaries represent 20.6%, and bank interests 1.7% (Table 2.3) of credit funds. There are important differences when Dioceses are compared. In Ibarra 70.7% of the funds were disbursed and 26.6% of interest recovered, while in Riobamba 85.6% of the funds were disbursed and 14.4 % of interest recovered.

Another approach to the use of credit funds showed that 75.4% of available funds were loaned and 24.6% were maintained in cash. In Ibarra, the distribution is as follows: 79.8% loans and 24.6% cash, while in Riobamba it is 70.4% loans and 29.6% cash.

Nevertheless, these percentages are distorted by the decision of the Riobamba Diocese to retain the last disbursement (25 millions sucres) in cash until the second quarter of 1996. It is important to underline that these percentages of inactive funds affect the financial maintenance and coverage of the credit component.

When we compare the amount of money disbursed by the project and the real current amounts managed in each Dioceses, we find an increase of one percent . The capital has increased 5% in Ibarra while it has decreased 2% in Riobamba. If current trend of fund usage continue the same in Riobamba, the credit component will definitively affect the financial sustainability of the credit funds.

#### **Credit Amount, Number of Credits and Number of Beneficiaries**

A total amount of US\$ 246,000 was delivered since June 1993. A total of 5,566 credits were given to 2,213 individuals (73.8% from target beneficiaries), (Table 2.5). The average number of credits per individual is 2.5 for the 32 months duration of the program. However, 1995 alone has an average of 1.6 credits per individual which means an important increase in credit activities in both Dioceses. Nevertheless, these indices would still indicate an average of two months as the current interval for assigning new credits. This practice diminishes coverage capacity, generates high percentages of inactive capital, and conspires against the financial sustainability of the program.

#### **Default and Irretrievable Credits**

Nearly 11.5% of all outstanding loans are overdue. This represents 119 borrowers, 116 in Ibarra Diocese and only three in Riobamba (Table 2.6). The most frequent reason for overdue loans is the death of animals bought with the loans. Other excuses are given but generally debtors are willing to pay. Riobamba applies a 'solidarity guarantee' at the community level, which means that if there is a loan overdue, credit would cease for the entire community. Community pressure on defaulters have been the main factor in reducing to a minimum the overdue level in the Diocese. In the Ibarra Diocese almost a 30% of overdue credit is considered as irretrievable by diocesan personnel. Criteria used to consider a loan as irretrievable are: death of beneficiary, unknown address, and total unwillingness to pay. If these conditions prevail the program would also lack financial sustainability. Measures are being taken to decrease irretrievable credits in Ibarra.

#### **Use of Loans and Level of Satisfaction**

The evaluation team considered appropriate to include several questions related to the credit component into the health and nutrition survey. The data collected and analyzed showed that marketing of loans was adequate. Credit promoters spent an average of 4.7 sessions to talk about the credit component and its benefits. Loans were invested for animal breeding and crops .

Earnings were destined for food, education, housing, and increased animal breeding. It is possible to infer that credit was income-generation oriented rather than self-consumption oriented, thus accomplishing only indirectly the household food security objective.

All mothers believed that the credit requisites are adequate. Nearly 90% considered interest rates satisfactory. Almost 50% thought the amount of funds was adequate for small animal purchases. Two thirds of mothers considered that credit allowed them to increase family food security, and the majority said they need additional credit to improve animal breeding and/or crops. Only a small percentage of mothers had access to other financing sources such as relatives or friends, other institutions, and/or money-lenders.

Community credit committees and project promoters believe that the credit component has a positive effect in motivating mothers to: a) participate in health activities; b) stay at home and participate in the economic support of the household; c) improve personal skills and economic position, and d) increase family food consumption. The problems they identified are the small size of the loans and the lack of technical assistance for animal breeding.

To improve the credit program, they suggested to increase loan amounts, to train mothers in credit management, to expand the range of credit beneficiaries to mothers with children older than 5 years, to maintain the technicians and strengthen the organization, and in the case of the Riobamba Diocese to increase both interest rates and the amount of capital of each loan.

### **Achievement of the Objective**

This objective has been achieved only in an indirect manner. Credit was used to generate income. The secondary aspect of the objective which tried to strengthen relationships between beneficiaries inside the community and with the Dioceses was well achieved. The survey and personal interviews have demonstrated that credit contributed to strengthening community organization. The central factor here was the perception that community action above individual efforts made access to credit possible. Credit was the main attraction to participate in the Child Survival Project, as mentioned by promoters, diocesan technicians and beneficiaries. The goal of 3,000 beneficiaries **was** partially (73.8%) accomplished.

## Objective Five

Ensure that 80% of mothers of children under five years of age can identify the major symptoms of pneumonia (rapid/difficult breathing and subcostal indrawing).

This evaluation studied children under two years of age as evaluated by the baseline and midterm evaluations. The main component of the educational campaign was aimed at teaching mothers to identify the major symptoms of pneumonia. This was partially achieved since only 36.6% of mothers could identify the symptoms and signs of pneumonia properly. A 82.3% increase from the baseline (17.6%) was achieved. Comparing beneficiaries and non-beneficiaries the difference (double) shows the impact of educational activities in this project.

**Table 10: Signs of Pneumonia**

Variable	Benef . (%)	Non Benef . (%)	Total (%)
Rapid/Difficult Breathing	45.0	23.5	36.6
Sub-Costal Indrawing	5.0	2.0	3.8

Source: CRS Child Survival in Marginal Rural Areas.  
Final survey. March 1996.

The percentage of mothers who seek some kind of assistance when their children under 2 suffer for ART is 64.1%. This percentage is 9% higher than the baseline. The above percentage (64.1%), can be broken down regarding the type of health service.

**Table 11: Percentage of Mothers Seeking Assistance for Their Children with AR1**

Type of Health service	Baseline (%)	Final Evaluation (%)
Private Doctor	34.5	30.2
Friends and Relatives	34.5	28.1
Health Center & Hospital	41.6	28.1

Source: CRS Child Survival in Marginal Rural Areas.  
Final survey. March 1996.



Assistance from traditional healers and local pharmacies was not significant. These results showed that most mothers seek assistance when their children are suffering from ART. Although the distribution among the different groups remains unchanged.

#### **Objective Six**

**Reduce the incidence of low birth weight by 10% and ensure an adequate gain of weight in/or 98% the children with normal birth weight.**

Although this objective was not directly measured in this project, the evaluation team used as a proxy maternal knowledge on weight gain during pregnancy and other maternal variables. The promotion of health and nutrition in pregnant women was not part of the strategies or objectives of this project. This survey only evaluated knowledge not practices. Only 13.7% of mothers have Maternal Health Record (Carnet de Salud Materna). The baseline study revealed a value of 6.8%.

The percentage of mothers that could recognize the importance of Tetanus Toxoid (TT) vaccine reached 53.4%. This does not necessarily mean that they will receive a full dose of TT. It is important to acknowledge that 57.1% of beneficiaries received one or more doses of vaccination.

The percentage of mothers that receive prenatal control has increased from 67% in the baseline to 76.7% in the final evaluation. A slightly higher percentage of beneficiaries (80.8%) received controls than non-beneficiaries (75%). Birth attendance by trained health personnel reached 40% (baseline attendance was 30%). This increase is both for beneficiaries and non-

beneficiaries (36.9%-48.3%). This may be due to a combined action of this project with the MOH which has its own ongoing maternal program. This coordinated activity would benefit the entire population.

#### **4.1.2 Positive and Negative "Spin Off" Effects of Project Activities.**

Positive and negative spin off effects of this project were identified by the evaluation team through interviews with project promoters and technicians, mother groups, community leaders, diocesan authorities, and MOH counterparts.

#### 4.1.2.1 Positive Effects

Women have benefitted greatly from the project. They have improved their situation within their own community. They play an important role in decision making, planning activities, and defining strategies. Women are **aware of** this situation and are now able to participate actively and confidently in new projects. They have acquired a sense of self-respect and empowerment.

The credit component of the project has been recognized as a key factor for the successful accomplishment of other components of the project. This component has strengthened educational strategies in a decisive manner. Although access to loans was not overly significant in quantitative terms, its social impact was enormous. In spite of the fact that people did not achieve big profits, a positive attitude towards creating small enterprises has been created. Many people have become aware of their capabilities to start more ambitious projects. Thus, developing strategies that can help maintain access to credit will play a decisive role in the sustainability of the health project.

High credibility of the diocesan project was demonstrated several times during the final evaluation. People refused to provide information to other organizations besides the church. Most community members were familiar with project activities, promoters, and technicians. They recognize diocesan personnel and talk to them spontaneously about project issues and activities.

The technician's training program was expanded as local needs appeared. They did not have a pre-established agenda for promoters training. The content of training activities was tailored to fit locally detected needs.

MOH provincial directorates and health units qualified the interinstitutional coordination as a positive experience that facilitated the accomplishment of mutual objectives and activities in most communities. In several cases mobilization of health personnel and equipment was possible thanks to the Diocesan vehicles.

Promoters and technicians consider the coordinated participation as a **key** factor for the success of project implementation. They consider working as a team is very important. Each member of the team felt the other as an extension of their own work.

It was a common and generalized practice in this project that the community promoters maintained a field notebook where they registered monthly activities such as: children weights, the occurrence of diarrheal diseases or acute respiratory infections, the completion of immunization schedules, etc. The information collected in these books was used for planning next month activities.

#### 4.1.2.2 Negative effects

The lack of growth charts forced the promoters of the Ibarra Diocese to recycle infant health charts of older children to start growth monitoring activities with younger or new children. They erased the names and data from former chart owners and re-wrote new data from new users. They also retain the health charts with them to avoid the charts deterioration or disappearance of charts. Although the idea of recycling charts attempted to compensate for the lack of materials, the unintended negative effects of this practice were: a) confusion of data when names or data were not well erased; b) lowered participation of mothers in growth monitoring; and, c) under-registration of other health activities such as immunizations.

Health charts should have been provided by the MOH as part of the cooperative agreement. At Riobamba Diocese, the promoters had to use two different types of infant health charts, one from the MOH national program, and another from Guayas Provincial Directorate. In Ibarra male or female health charts were used without distinction. This produced some confusion, under-registration of health activities, and problems for monitoring the health promoters work.

The technicians of both Dioceses developed training activities according to their local needs but there is no record of performed activities. This made it difficult to monitor their actual activities.

The population of Cumanda, Riobamba Diocese, preferred Bucay health unit for medical services. Bucay is further away than other health units. At the same time, Bucay is part of Guayas province but its personnel enjoys better public relations than the personnel from local health units. For project technicians and promoters it was difficult to maintain optimal coordination when people went beyond the limits of the Diocese.

Frequent strikes of health workers at national level affected the normal development of project activities.

**4.1.3 Final Survey Report**  
(see Annex 1)

**4.1.4 Project Expenditures**

**4.1.4.1 Pipeline Analysis of Project Expenditures**  
(see Appendix A)

**4.1.5 Lessons Learned**

Community selection was based on access, poverty levels, participation of local clergy, and participation of local leaders. Technical considerations on how to select communities based on health or nutritional indices were lacking. Furthermore, data was unavailable at that time to help with this process.

There was no correlation between size and geographic location of diocesan communities and available resources of the project (human and material). Both technical teams had to support an extremely heavy work load. This represented a 250% increase from previous projects. An ideal setting might have taken into consideration a gradual incorporation of communities according to real technical, functional and administrative capacity.

The design of activities and strategies to curtail malnutrition did not necessarily adjust to the intended/stated objectives. This project only intended to promote an educational component.

- At the beginning of the project the lack of clergy participation played against building trust and community appropriation of the project. Over time this has changed with an increased interest by clergy in the project. This has been achieved due to the combined effort of CRS staff and technicians. Both Dioceses have come to realize the positive energy power that projects like this can provide. Both Bishops and Vicars have provided full political and logistical support to the project.

The lack of a proper supply of Infant Health Charts by the MOH did not exempt the project from trying to obtain these instruments by other means. A prompt request by the authorities of the Dioceses at the proper level to the MOH could have improved the supply of these resources. Technicians did not take into consideration the real importance of recording weight on the IHCh. Nonetheless, a very positive outcome in this project **was** the active

participation of mothers in the weighing process of their children. This is a definitive change in practices and attitudes with respect to what was done in the past. Mothers' involvement will raise their awareness concerning the real health and nutritional state of their children.

Most promoters felt that strong and continuous technical support would still be needed beyond project closure to ensure sustainability. None of the project communities believed that it would be possible to continue with project activities without technical and logistical support. Promoters and community members considered project feedback to be crucial, at least during a period of project consolidation.

According to the diocesan technicians, the coordination between educational activities and the needs of the community could be improved. The education plan was directed from Quito, was rigid and did not allow much flexibility. It is important to clarify that CRS staff argued that time constraints did not allow for a more flexible, expanded educational program. (More than nine different themes were supposed to be covered within a year).

## **4.2 Project Sustainability**

### **4.2.1 Community Participation**

The project improved the communities' perception of organization. This was extremely important to support a strong link and a feeling of group cohesion among project beneficiaries. They now identify themselves as a group with the same objectives. This has encouraged the appearance of community leaders with new demands for skills and knowledge. This is the main input that the community will provide to ensure sustainability.

Approximately 30.0% of community leaders have also proposed the creation of new community based mutual fund cooperatives, which would increase their access to credit and encourage entrepreneurial activities. Some promoters have already started fund-raising activities to support community development.

The following are some of the activities supported by the community for their own training:

- Afternoon training sessions held locally.
- Use of participatory methods.

- Provision of food during training sessions.

Promoters participate with a great sensibility about the well being of the community, regardless of not receiving a wage or stipend. Access to decision making and planning together have been great incentives for their involvement and for project sustainability. This degree of success can be attributed to the commitment of community leaders in developing a sense of trust among the population.

The community has developed a clear identification and a sense of ownership of the program. Many members have an increased sense of self-control and self-confidence.

#### **4.2.2 Ability and Willingness of Counterpart Institutions to Sustain Project Activities.**

MOH officials viewed the projects' activities as positive and helpful to their own agenda. During the life of the project, they launched successful join vaccination and educational campaigns. They also benefitted from some of the information that has been provided by members of the project. This helps the MOH in the promotion and coverage of their own activities. In addition, the Dioceses allow members from the MOH to use some of their own medical and pharmaceutical facilities.

The Director of CEMOPLAF stated that they interacted positively with the project in certain activities such as maternal health promotion. In return the project helped with transportation to certain communities for CEMOPLAF personnel.

#### **4.2.3 Key Factors That Might Determine Project Sustainability in the Future.**

There are several factors that will determine sustainability for this project. Some of them depend on political, economic, cultural and environmental conditions. Other factors are mostly related to inherent conditions of the project, such as:

- Perception of effectiveness created among those who benefit from project activities;
- Development of mechanisms for optimizing current financial support;
- Commitment of project authorities, personnel and promoters: and,

Community response to activities such as loan reimbursement, health and nutritional activities, etc.

Sustainability must be understood as the continuation of benefits after the termination of any particular type of support (financial, technical, material). The success of future projects requires the continuity of individual, community, private and governmental counterparts (MOH- and Peasant Social Security) capacity to persist with their commitment such as reinforcing and promoting new activities. The establishment of new agreements would ease the pursuing of targets with the minimal amount of extra resources. Then, it will be important to focus on the capability of an integrated public-private partnership, and the joint establishment of targets with those future beneficiaries.

The evaluation team identified several factors that could be considered positive for sustainability and other factors that could be viewed as obstacles.

#### **4.2.3.1. Positive Factors for Sustainability**

Involvement of the community promoters in planning and implementing activities from the beginning:

Participation of technicians in the selection of promoters among community volunteers created an environment of integrated relationship between Dioceses and communities;

- Use of participatory training methods.

The fact that promoters worked effectively without payment was not an obstacle for the success of certain project activities. They felt empowered and responsible to identify and solve problems for the community. Technical support was of paramount importance in supporting promoters activities within the project. Technical advising within the credit component was also important.

The possibility of continuous supervision by project technicians on different activities and joint programming is also a key component in supporting sustainability.

- Local interest to participate in credit funds has heightened the interest of community members in sustaining other project activities such as health demonstrations, growth monitoring, vaccinations, and other health activities.

The capacity to network with the MOH and NGO's was demonstrated by both Dioceses. Institutional interaction with CEMOPLAF and the Peace Corps was especially fruitful and could be considered as another **key** element to sustainability.

- Sustainability has also been garnered through the monthly meetings between technicians and promoters. This created an appropriate environment to exchange ideas on problems and solutions, as well as a sense of permanently coordinated work. This practice has been transmitted to the community through monthly meetings between promoters and mothers.

#### 4.2.3.2 Obstacles for Sustainability

Lack of direct support from health centers.

Lack of supplies (infant health charts, oral rehydration salts).

Lack of decentralized programming.

Lack of support for local initiatives.

Insufficient loan amounts provided by the credit component.

### 5. CONCLUSIONS

There are several characteristics of beneficiary mothers that make them vulnerable to health problems. As a consequence, they constitute an important risk group for future health and credit actions. Some of those characteristics are:

- . A considerable percentage (18 %) of mothers correspond to **age group** 35 years and older. They constitute a risk group in future pregnancies.
- . A fourth of mothers are illiterate.
- . Nearly a quarter of mothers work outside the home.
- . Two-third of mothers work in agricultural tasks.

There are several characteristics of beneficiary mothers that could facilitate the implementation of future projects: over 95% of current project beneficiaries assisted monthly meetings, a high percentage of them consider health, credit, and education important issues;



proper lactation habits seem to be entrenched in most mothers; institutional birth delivery has increased, constituting an opening up of mothers towards formal health care.

- The survey and personal interviews demonstrated that the credit component contributed significantly to strengthening community organization. The main factor was the perception that community action made access to credit possible. Credit was a strong motivating factor to participate in child survival activities.

Educating the community and providing health and nutritional services must be a joint activity with the real participation of public and private institutions. Low coverage of vaccinations and lack of health instruments are products of changing health policies and authorities at government level. This project made efforts to cope with these problems; however, in the future the coordination with other institutions must be strengthened and new mechanisms explored.

From the onset of the project, realistic expectations for the accomplishment of production and credit objectives were deficient. The lack of adequate mechanisms of diffusion raised problems in credit understanding, implementation, monitoring and control. To avoid future problems there is a list of recommendations related to financial management of credit funds in the financial appendixes.

The educational effort of this project made strongly evident the advances in diarrheal disease control: the use of ORS increased from baseline, the percentage of mothers providing more fluids during last episode of diarrhea increased, and coincidentally the prevalence of diarrhea in three consecutive years (August 93, 94 & 95) decreased.

- Women have benefitted greatly from the project. They have improved their situation within their own community. They play an important role in decision making, planning activities, and defining strategies. Women are aware of this situation and are now able to participate actively and confidently in new projects. They have acquired a sense of self-respect and empowerment.
- The Credit component of this project has been recognized as a key factor for the successful accomplishment of other components of the project. This component has strengthened educational strategies in a decisive manner. A positive

attitude towards creating small enterprises, has been created. Many people have become aware of their capabilities to start more ambitious projects. Thus, developing strategies that can help maintain access to credit will play a decisive role in the sustainability of the health project.

Finally, we conclude that the technicians and promoters of this project made substantial efforts to accomplish most of the objectives and goals included in the design of the project. They had to deal with a lack of instruments to monitor several components of the project, such as: a) nutritional indicators and methodology to evaluate nutritional conditions of mothers and children; b) imperfect design, procedures and follow-up mechanisms for credit component, and c) excess of optimism when planning to intervene in 120 communities without sufficient time and human resources.

Project objectives were partially achieved (70% in average). Project objectives were achieved as follows: Objective 2 (almost 80% of mothers could identify symptoms of dehydration due to diarrheal diseases), Objective 3 (less than 60% of beneficiary children immunized), Objective 4 (73.8% of target communities served by credit component), and Objective 5 (60.9% of mothers that could recognize symptoms of ARI).

The first and last objectives had to be evaluated by proxy indicators. We can not fully conclude that nutritional impact occurred, but we are highly confident of changes in mothers and community knowledge about health, nutrition and credit.

We recommend continuing the activities implemented by both Dioceses. At the same time, we encourage the authorities to strengthen their relationships with counterparts, to optimize the use of loans, and to continue the educational components related to child survival and maternal health.